

**Flood Control Project Maintenance
Levee Inspections**

Fall 2018 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including DWR Erosion Survey

San Joaquin River Basin

RD2075	Overall LMA Rating	Total LMA Miles						
Reclamation District No. 2075 McMullin	M	7.45						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation		0.20	0.80	10.74%				
Trim / Thin Trees		0.01	0.04	0.54%				
<i>Supplemental</i>								
DWR UCIP Field Study					0.06			
DWR UCIP LMA Responsibility								
2017 Storm Damage	0.09		0.09	1.21%				
<i>LMA Totals:</i>	0.09	0.21	0.93	12.49%	0.06	0.00	0.00	0.00

Unit No. 01 San Joaquin River RB	Overall Unit Rating	Total Unit Miles						
RD2075	M	7.45						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation		0.20	0.80	10.74%				
Trim / Thin Trees		0.01	0.04	0.54%				
<i>Supplemental</i>								
DWR UCIP Field Study					0.06			
DWR UCIP LMA Responsibility								
2017 Storm Damage	0.09		0.09	1.21%				
<i>Unit Totals:</i>	0.09	0.21	0.93	12.49%	0.06	0.00	0.00	0.00

**Flood Control Project Maintenance
Levee Inspections****LMA District Cover Sheet****Fall 2018 Levee Inspection Results****Reclamation District No. 2075 McMullin**

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
† Overall LMA Rating (Fall Only)			M	

** Non-receipt of Summer or Winter Inspection
Reports may effect overall annual rating.

† **SPRING INSPECTIONS:** Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2018 Levee Inspection Results

Reclamation District No. 2075 McMullin

Waterway			Bank	Unit Miles
Unit No. 01 San Joaquin River			Right	7.45
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			M	
Date of Inspection	5/24/2018 - 5/24/2018		11/9/2018 - 11/9/2018	
DWR Inspector	Richard Willoughby		Richard Willoughby	
Accompanied By	Loren Haworth		Loren Haworth	
	Brian Mizuno		Brian Mizuno	

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- completion of the inspection
- any changes other than the results of normal maintenance
- corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start		Rating **	A	Issue No.	9
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Operations & Maintenance Manuals			°	37.744860°
				°	-121.289828°
DWR ID	DWR_RD2075_01_f_2014_9				
Comment Code					
Inspector Comment					
RD 2075 has the O&M Manual on file.					

No Photos

LM Start		Rating **	A	Issue No.	10
LM End		Issue Type +	Ma	Location *	
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Emergency Supplies & Equipment			°	°
				°	°
DWR ID	DWR_RD2075_01_f_2014_10				
Comment Code					
Inspector Comment					
RD 2075 has emergency supplies stored in their building.					

No Photos

LM Start		Rating **	A	Issue No.	11
LM End		Issue Type +	Ma	Location *	
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Flood Preparedness & Training			°	°
				°	°
DWR ID	DWR_RD2075_01_f_2014_11				
Comment Code					
Inspector Comment					
RD 2075 has regular training for their work crews, they don't have district crew only trustees, landowners and farmers.					

No Photos

*** Location**

LS : Land Side N/A : Not Applicable
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable N : Not Inspected/Rated
M : Minimally Acceptable C : Corrected
U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

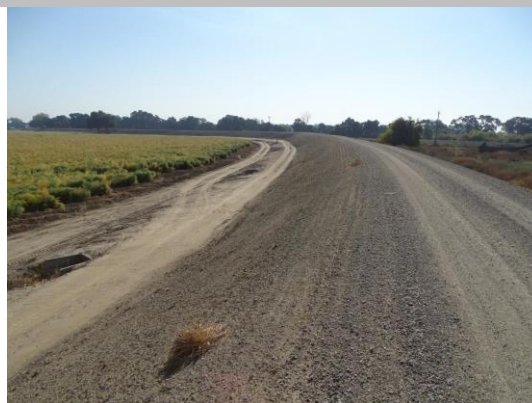
Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	0.00	Rating **	A	Issue No.	24
LM End	7.43	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation				°
					°
DWR ID	DWR_RD2075_01_f_2018_24				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
Vegetation on landward slope is acceptable expect from LM 1.43 to 1.63 issue # 29					

No Photos

LM Start	0.00	Rating **	A	Issue No.	25
LM End	7.43	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.748200 °	37.714162 °
				-121.289717 °	-121.259220 °
DWR ID	DWR_RD2075_01_f_2018_25				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
Vegetation on landward slope is acceptable expect from LM 1.43 to 1.63 issue # 29					

Photo 1 of 1 : FA_2018_RD2075_315_25_20181126_00066.jpg



Typical view of levee along landward slope. (Fall 2018)

LM Start	0.00	Rating **	A	Issue No.	30
LM End	7.43	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.748200 °	37.714162 °
				-121.289717 °	-121.259227 °
DWR ID	DWR_RD2075_01_f_2018_30				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

Photo 1 of 1 : FA_2018_RD2075_315_30_20181126_00067.jpg



Typical view of levee along waterward slope. (Fall 2018)

*** Location**

LS : Land Side N/A : Not Applicable
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable N : Not Inspected/Rated
M : Minimally Acceptable C : Corrected
U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	0.12	Rating **	M	Issue No.	31
LM End	0.12	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.748200 °	37.748200 °
				-121.289717 °	-121.289717 °
DWR ID	24735				
Comment Code					
Inspector Comment					
FS_ID:24663 DS_ID:24735 EP_NO: 4736 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: - pipe not visible on waterside.- no access to concrete riser on waterside.- blocked siphon breaker. FIELD_STRUCT_DESC: 14-inch coated steel drainage discharge pipe through the levee, 4 feet below the crown. Two concrete cutoff walls. Pump mounted on a pile structure in the drainage ditch on the landside (LS). Siphon breaker in a concrete riser on the waterside (WS) slope. Concrete distribution box at the WS toe. (Plans for removing and replacing an existing drainage pipe through the levee authorized under Permit No. 4736, 1964 - Reclamation District No. 2075). [Additional Reference(s): DWR Levee Log, 2005, 12-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 0.12), 12-inch pipe referenced]. FS Date: 11/13/2013					

LM Start	0.12	Rating **	M	Issue No.	31 (cont)
LM End	0.12	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_FA_2018_24663_44022.jpg



WS view: concrete standpipe (top) and concrete pipe riser (bottom) on levee slope.

Photo 2 of 3 : UCIP_FA_2018_24663_44021.jpg



WS view: concrete pipe riser with siphon breaker on levee slope.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	0.12	Rating **	M	Issue No.	31 (cont)	
LM End	0.12	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			37.748200 °	37.748200 °	
				-121.289717 °	-121.289717 °	
DWR ID	24735					
Comment Code						
Inspector Comment						
FS_ID:24663 DS_ID:24735 EP_NO: 4736 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: - pipe not visible on waterside.- no access to concrete riser on waterside.- blocked siphon breaker. FIELD_STRUCT_DESC: 14-inch coated steel drainage discharge pipe through the levee, 4 feet below the crown. Two concrete cutoff walls. Pump mounted on a pile structure in the drainage ditch on the landside (LS). Siphon breaker in a concrete riser on the waterside (WS) slope. Concrete distribution box at the WS toe. (Plans for removing and replacing an existing drainage pipe through the levee authorized under Permit No. 4736, 1964 - Reclamation District No. 2075). [Additional Reference(s): DWR Levee Log, 2005, 12-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 0.12), 12-inch pipe referenced]. FS Date: 11/13/2013						

Photo 3 of 3 : UCIP_FA_2018_24663_44020.jpg



LS view: walkway, pump, service pole, and intake structure.

LM Start	0.99	Rating **	C	Issue No.	13
LM End	1.00	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.740015°	37.739830°
				-121.281243°	-121.281217°
DWR ID	DWR_RD2075_01_f_2016_13				
Comment Code					
T4 : Trim trees over roadway to at least 12 feet above ground level.					
Inspector Comment					
Trees have been trimmed to allow inspection and access.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	1.06	Rating **	C	Issue No.	17
LM End	1.06	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.739073 °	37.739073 °
				-121.281620 °	-121.281620 °
DWR ID	DWR_RD2075_01_f_2016_17				
Comment Code					
T4 : Trim trees over roadway to at least 12 feet above ground level.					
Inspector Comment					
Trees trimmed to allow inspection and access.					

No Photos

LM Start	1.43	Rating **	U	Issue No.	29
LM End	1.63	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.735061 °	37.734213 °
				-121.284269 °	-121.287660 °
DWR ID	DWR_RD2075_01_s_2018_29				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Wild growth at landward toe blocking view and should cleared fifteen feet for landward toe.					

Photo 1 of 3 : FA_2018_RD2075_315_29_20180906_00042.jpg



Looking west at dense veg at landward toe. (Spring 2018)

LM Start	1.43	Rating **	U	Issue No.	29 (cont)
LM End	1.63	Issue Type +	Ma	Location *	LS

Photo 2 of 3 : FA_2018_RD2075_315_29_20180906_00043.jpg



Looking west at dense veg. at landward toe. (Spring 2018)

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable		N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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Reclamation District No. 2075 McMullin

Looking northeast at dense veg at landward toe. (Spring 2018)

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	1.58	Rating **	M	Issue No.	12 (cont)
LM End	1.67	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.734353 °	37.734463 °
				-121.286720 °	-121.288258 °
DWR ID	DWR_RD2075_01_f_2017_12				

Comment Code

Inspector Comment

Levee Evaluation Comments

Description: Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No: 575

Site Designation: LMA-481

Repair Type: Erosion

Rating: Area of Concern

Field Date: 8/10/2017

Notes: 10/23/17: According to LMA and my observations at LM 1.63, this site never had riprap (contrary to previous comments). Erosion has encroached into levee prism. Future high water and wavewash will likely advance erosion further into prism. Repairs should be made prior to next high water.

LM Start	1.58	Rating **	M	Issue No.	12 (cont)
LM End	1.67	Issue Type +	Ma	Location *	WS

Photo 2 of 4 : LEVAL_FA_2018_575_4245.jpg



Photo 3 of 4 : LEVAL_FA_2018_575_4246.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	1.58	Rating **	M	Issue No.	12 (cont)					
LM End	1.67	Issue Type +	Ma	Location *	WS					
Category	Supplemental		GPS Latitude/Longitude							
			Start	End						
Item	2017 Storm Damage		37.734353 °	37.734463 °						
			-121.286720 °	-121.288258 °						
DWR ID	DWR_RD2075_01_f_2017_12									
Comment Code										
Inspector Comment										
<p>Levee Evaluation Comments</p> <p>Description: Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.</p> <p>Site ID No: 575</p> <p>Site Designation: LMA-481</p> <p>Repair Type: Erosion</p> <p>Rating: Area of Concern</p> <p>Field Date: 8/10/2017</p> <p>Notes: 10/23/17: According to LMA and my observations at LM 1.63, this site never had riprap (contrary to previous comments). Erosion has encroached into levee prism. Future high water and wavewash will likely advance erosion further into prism. Repairs should be made prior to next high water.</p>										

Photo 4 of 4 : FA_2018_RD2075_315_12_20180906_00007.jpg



10/23/17: According to LMA and my observations at LM 1.63, this site never had riprap (contrary to previous comments). Erosion has encroached into levee prism. Future high water and wavewash will likely advance erosion further into prism. Repairs should be made prior to next high water.

LM Start	2.32	Rating **	M	Issue No.	32					
LM End	2.32	Issue Type +	Ma	Location *						
Category	Supplemental		GPS Latitude/Longitude							
			Start	End						
Item	DWR UCIP LMA Responsibility		37.731314 °	37.731314 °						
			-121.293713 °	-121.293713 °						
DWR ID	24737									
Comment Code										
Inspector Comment										
<p>FS_ID: 24666</p> <p>DS_ID: 24737</p> <p>EP_NO: N/A</p> <p>Repair Type: Non-Urgent</p> <p>Crossing Status: Found</p> <p>UCIP Comments: - service pole on landside.- looks abandoned.</p> <p>Walkway in dilapidated condition.</p> <p>FIELD_STRUCT_DESC: 16-inch steel drainage discharge pipe through the levee, 4.5 feet below the crown. Corrugated metal cutoff wall. Pump mounted on a pile structure in a drainage ditch on the landside (LS).</p> <p>Siphon breaker in a corrugated metal pipe (CMP) riser on the waterside (WS) slope. [Additional Reference(s): DWR Levee Log, 2005. USACE San Joaquin O&M Manual 3, December 1968, (HLM 2.30)].</p> <p>FS Date: 11/13/2013</p>										

Photo 1 of 3 : UCIP_FA_2018_24666_45600.jpg



WS view: concrete standpipe (top) and steel pipe riser (bottom marked) on levee slope.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable		N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	2.32	Rating **	M	Issue No.	32 (cont)	
LM End	2.32	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP LMA Responsibility			37.731314 °	37.731314 °	
				-121.293713 °	-121.293713 °	
DWR ID	24737					
Comment Code						
Inspector Comment						
FS_ID:24666						
DS_ID:24737						
EP_NO: N/A						
Repair Type: Non-Urgent						
Crossing Status: Found						
UCIP Comments: - service pole on landside.- looks abandoned.						
Walkway in dilapidated condition.						
FIELD_STRUCT_DESC: 16-inch steel drainage discharge pipe through the levee, 4.5 feet below the crown. Corrugated metal cutoff wall. Pump mounted on a pile structure in a drainage ditch on the landside (LS).						
Siphon breaker in a corrugated metal pipe (CMP) riser on the waterside (WS) slope. [Additional Reference(s): DWR Levee Log, 2005. USACE San Joaquin O&M Manual 3, December 1968, (HLM 2.30)].						
FS Date: 11/13/2013						

Photo 2 of 3 : UCIP_FA_2018_24666_44030.jpg



WS view: blocked siphon breaker in steel pipe riser on levee slope.

LM Start	2.32	Rating **	M	Issue No.	32 (cont)
LM End	2.32	Issue Type +	Ma	Location *	

Photo 3 of 3 : UCIP_FA_2018_24666_44029.jpg



WS view: concrete standpipe on levee toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	2.32	Rating **	A/W	Issue No.	15
LM End	2.78	Issue Type +	Ma	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.731200 °	37.724900 °
				-121.293400 °	-121.293800 °
DWR ID	DWR_RD2075_01_f_2017_15				

Comment Code

Inspector Comment

Levee Evaluation Comments

Description: Sinkholes have formed along the landside levee toe as a result of the high water. The cause of the sinkholes is not clear, but a similar phenomenon in this area is believed to have caused the levee breach earlier this year. Further geotechnical investigation is needed.

Site ID No: 479

Site Designation: LMA-306

Repair Type: Stability

Rating: Area of Concern

Field Date: 7/26/2017

Notes: Sink holes appear to have already been filled. 10/23/17: LMA has removed pipes (parallel to levee) in this area, and drainage ditch has been relocated to approx 60 feet away from levee toe. Known sandy soils in region may contribute to sinkholes.

LM Start	2.32	Rating **	A/W	Issue No.	15 (cont)
LM End	2.78	Issue Type +	Ma	Location *	LS

Photo 1 of 3 : LEVAL_FA_2018_479_2203.jpg



Photo 2 of 3 : LEVAL_FA_2018_479_2215.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	2.32	Rating **	A/W	Issue No.	15 (cont)							
LM End	2.78	Issue Type +	Ma	Location *	LS							
Category	Supplemental		GPS Latitude/Longitude									
			Start	End								
Item	2017 Storm Damage		37.731200°	37.724900°								
			-121.293400°	-121.293800°								
DWR ID	DWR_RD2075_01_f_2017_15											
Comment Code												
Inspector Comment												
<p>Levee Evaluation Comments Description: Sinkholes have formed along the landside levee toe as a result of the high water. The cause of the sinkholes is not clear, but a similar phenomenon in this area is believed to have caused the levee breach earlier this year. Further geotechnical investigation is needed. Site ID No: 479 Site Designation: LMA-306 Repair Type: Stability Rating: Area of Concern Field Date: 7/26/2017 Notes: Sink holes appear to have already been filled. 10/23/17: LMA has removed pipes (parallel to levee) in this area, and drainage ditch has been relocated to approx 60 feet away from levee toe. Known sandy soils in region may contribute to sinkholes.</p>												

Photo 3 of 3 : FA_2018_RD2075_315_15_20180906_00017.jpg



10/23/17: LMA has removed pipes (parallel to levee) in this area, and drainage ditch has been relocated to approx 60 feet away from levee toe. Known sandy soils in region may contribute to sinkholes.

LM Start	2.74	Rating **	A/W	Issue No.	16							
LM End	2.84	Issue Type +	Ma	Location *	WS							
Category	Supplemental		GPS Latitude/Longitude									
			Start	End								
Item	2017 Storm Damage		37.725200°	37.724000°								
			-121.294400°	-121.293200°								
DWR ID	DWR_RD2075_01_f_2017_16											
Comment Code												
Inspector Comment												
<p>Levee Evaluation Comments Description: Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections. Site ID No: 480 Site Designation: LMA-307 Repair Type: Erosion Rating: Area of Concern Field Date: 7/26/2017 Notes: Low priority because of the wide berm. Could not see all of the bank because of vegetation. Rock was placed on LS here during this years (2017) storms.</p>												

Photo 1 of 3 : LEVAL_FA_2018_480_2206.jpg



* Location	** Rating	+ Issue Type
LS : Land Side WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
N/A : Not Applicable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	2.74	Rating **	A/W	Issue No.	16 (cont)
LM End	2.84	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.725200 °	37.724000 °
				-121.294400 °	-121.293200 °
DWR ID	DWR_RD2075_01_f_2017_16				
Comment Code					

Inspector Comment

Levee Evaluation Comments

Description: Slope protection repairs are needed along the waterside slope due to erosion. Based upon levee inspections, it was determined the waterside levee slopes were eroding, deteriorating and degrading in concave pocket sections at various locations along this levee reach. The eroded levee sections need to be restored back to design standards to prevent further deterioration of the damaged levee sections.

Site ID No: 480

Site Designation: LMA-307

Repair Type: Erosion

Rating: Area of Concern

Field Date: 7/26/2017

Notes: Low priority because of the wide berm. Could not see all of the bank because of vegetation. Rock was placed on LS here during this years (2017) storms.

LM Start	2.74	Rating **	A/W	Issue No.	16 (cont)
LM End	2.84	Issue Type +	Ma	Location *	WS

Photo 2 of 3 : LEVAL_FA_2018_480_2207.jpg



Photo 3 of 3 : LEVAL_FA_2018_480_2209.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	2.77	Rating **	A/W	Issue No.	14
LM End	2.83	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.724810 °	37.724207 °
				-121.294150 °	-121.293308 °
DWR ID	DWR_RD2075_01_f_2017_14				

Comment Code

Inspector Comment

Levee Evaluation Comments

Description:

Site ID No:81

Site Designation:LMA-35

Repair Type: Erosion

Rating:Area of Concern

Field Date:6/8/2017

Notes: no damage present 10/23/17: Photos taken of vertical eroded low-flow bank approximately 20 feet from waterside levee toe. Area is composed of loose sand. Sandbar in channel may direct current toward this area.

LM Start	2.77	Rating **	A/W	Issue No.	14 (cont)
LM End	2.83	Issue Type +	Ma	Location *	WS

Photo 1 of 6 : LEVAL_FA_2018_81_1339.jpg



Photo 2 of 6 : LEVAL_FA_2018_81_1341.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	2.77	Rating **	A/W	Issue No.	14 (cont)
LM End	2.83	Issue Type +	Ma	Location *	WS
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	2017 Storm Damage		37.724810°	37.724207°	
			-121.294150°	-121.293308°	
DWR ID	DWR_RD2075_01_f_2017_14				

Comment Code

Inspector Comment

Levee Evaluation Comments

Description:

Site ID No:81

Site Designation:LMA-35

Repair Type: Erosion

Rating:Area of Concern

Field Date:6/8/2017

Notes: no damage present 10/23/17: Photos taken of vertical eroded low-flow bank approximately 20 feet from waterside levee toe. Area is composed of loose sand. Sandbar in channel may direct current toward this area.

LM Start	2.77	Rating **	A/W	Issue No.	14 (cont)
LM End	2.83	Issue Type +	Ma	Location *	WS

Photo 3 of 6 : LEVAL_FA_2018_81_1343.jpg



Photo 4 of 6 : FA_2018_RD2075_315_14_20180906_00012.jpg



View down through erosion rut in bank. 10/23/17: Photos taken of vertical eroded low-flow bank approximately 20 feet from waterside levee toe. Area is composed of loose sand. Sandbar in channel may direct current toward this area.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	2.77	Rating **	A/W	Issue No.	14 (cont)
LM End	2.83	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.724810°	37.724207°
				-121.294150°	-121.293308°
DWR ID	DWR_RD2075_01_f_2017_14				
Comment Code					

Comment Code

Inspector Comment

Levee Evaluation Comments

Description:

Site ID No:81

Site Designation:LMA-35

Repair Type: Erosion

Rating:Area of Concern

Field Date:6/8/2017

Notes: no damage present 10/23/17: Photos taken of vertical eroded low-flow bank approximately 20 feet from waterside levee toe. Area is composed of loose sand. Sandbar in channel may direct current toward this area.

LM Start	2.77	Rating **	A/W	Issue No.	14 (cont)
LM End	2.83	Issue Type +	Ma	Location *	WS

Photo 5 of 6 : FA_2018_RD2075_315_14_20180906_00013.jpg



View upstream showing narrow distance between levee toe and vertical bank. 10/23/17: Photos taken of vertical eroded low-flow bank approximately 20 feet from waterside levee toe. Area is composed of loose sand. Sandbar in channel may direct current toward this area.

Photo 6 of 6 : FA_2018_RD2075_315_14_20180906_00014.jpg



View upstream showing narrow distance between levee toe and vertical bank. 10/23/17: Photos taken of vertical eroded low-flow bank approximately 20 feet from waterside levee toe. Area is composed of loose sand. Sandbar in channel may direct current toward this area.

*** Location**

LS : Land Side N/A : Not Applicable
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable N : Not Inspected/Rated
M : Minimally Acceptable C : Corrected
U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	3.86	Rating **	M	Issue No.	33	
LM End	3.86	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			37.713744 °	37.713744 °	
				-121.280712 °	-121.280712 °	
DWR ID	24746					
Comment Code						
Inspector Comment						
FS_ID:41721						
DS_ID:24746						
EP_NO: N/A						
Repair Type: Non-Urgent						
Crossing Status: Found						
UCIP Comments: Several concrete structure with Alfalfa valve. Only steel pipe visible on river bank. Service pole on waterside.New field discovered crossing.						
FIELD_STRUCT_DESC: 10-inch polyvinyl chloride (PVC) irrigation discharge pipe through the levee, at an unknown depth. Slant pump on the riverbank. Distribution box on the waterside (WS) berm. Concrete U-shaped headwall and open outlet on the landside (LS) toe. Crossing was field discovered. (Plans to install a slant pump on the riverbank authorized under Permit No. 5484, 1966 - Jack Clinton).						
FS Date: 11/13/2013						

LM Start	3.86	Rating **	M	Issue No.	33 (cont)
LM End	3.86	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_FA_2018_41721_45982.jpg



WS view: slant pump and concrete distribution box on levee berm.

Photo 2 of 3 : UCIP_FA_2018_41721_45981.jpg



WS view: slant pump on timber pile in the stream.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	3.86	Rating **	M	Issue No.	33 (cont)	
LM End	3.86	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			37.713744 °	37.713744 °	
				-121.280712 °	-121.280712 °	
DWR ID	24746					
Comment Code						
Inspector Comment						
FS_ID:41721						
DS_ID:24746						
EP_NO: N/A						
Repair Type: Non-Urgent						
Crossing Status: Found						
UCIP Comments: Several concrete structure with Alfalfa valve. Only steel pipe visible on river bank. Service pole on waterside.New field discovered crossing.						
FIELD_STRUCT_DESC: 10-inch polyvinyl chloride (PVC) irrigation discharge pipe through the levee, at an unknown depth. Slant pump on the riverbank. Distribution box on the waterside (WS) berm. Concrete U-shaped headwall and open outlet on the landside (LS) toe. Crossing was field discovered. (Plans to install a slant pump on the riverbank authorized under Permit No. 5484, 1966 - Jack Clinton).						
FS Date: 11/13/2013						

Photo 3 of 3 : UCIP_FA_2018_41721_45980.jpg



LS view: concrete U type headwall on levee toe and open PVC pipe.

LM Start	3.90	Rating **	A/W	Issue No.	18
LM End	3.95	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.713388 °	37.713492 °
				-121.280018 °	-121.278982 °
DWR ID	DWR_RD2075_01_f_2017_18				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.					
Site ID No:576					
Site Designation:LMA-482					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:8/10/2017					
Notes: 10/23/17: There was no riprap in this area. Erosion sites have been repaired by LMA.					

Photo 1 of 4 : LEVAL_FA_2018_576_4231.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	3.90	Rating **	A/W	Issue No.	18 (cont)	
LM End	3.95	Issue Type +	Ma	Location *	WS	
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	2017 Storm Damage			37.713388 °		37.713492 °
				-121.280018 °		-121.278982 °
DWR ID	DWR_RD2075_01_f_2017_18					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.						
Site ID No:576						
Site Designation:LMA-482						
Repair Type: Erosion						
Rating:Area of Concern						
Field Date:8/10/2017						
Notes: 10/23/17: There was no riprap in this area. Erosion sites have been repaired by LMA.						

Photo 2 of 4 : LEVAL_FA_2018_576_4236.jpg



LM Start	3.90	Rating **	A/W	Issue No.	18 (cont)
LM End	3.95	Issue Type +	Ma	Location *	WS

Photo 3 of 4 : LEVAL_FA_2018_576_4238.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	3.90	Rating **	A/W	Issue No.	18 (cont)							
LM End	3.95	Issue Type +	Ma	Location *	WS							
Category	Supplemental		GPS Latitude/Longitude									
			Start	End								
Item	2017 Storm Damage		37.713388 °	37.713492 °								
			-121.280018 °	-121.278982 °								
DWR ID	DWR_RD2075_01_f_2017_18											
Comment Code												
Inspector Comment												
Levee Evaluation Comments Description: Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage. Site ID No: 576 Site Designation: LMA-482 Repair Type: Erosion Rating: Area of Concern Field Date: 8/10/2017 Notes: 10/23/17: There was no riprap in this area. Erosion sites have been repaired by LMA.												

Photo 4 of 4 : FA_2018_RD2075_315_18_20180906_00025.jpg



10/23/17: There was no riprap in this area (contrary to previous comment). Erosion sites have been repaired by LMA.

LM Start	4.00	Rating **	A/W	Issue No.	19							
LM End	4.04	Issue Type +	Ma	Location *	WS							
Category	Supplemental		GPS Latitude/Longitude									
			Start	End								
Item	2017 Storm Damage		37.714048 °	37.714630 °								
			-121.278363 °	-121.278263 °								
DWR ID	DWR_RD2075_01_f_2017_19											
Comment Code												
Inspector Comment												
Levee Evaluation Comments Description: Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage. Site ID No: 577 Site Designation: LMA-483 Repair Type: Erosion Rating: Area of Concern Field Date: 8/10/2017 Notes:												

Photo 1 of 3 : LEVAL_FA_2018_577_4471.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	4.00	Rating **	A/W	Issue No.	19 (cont)
LM End	4.04	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.714048 °	37.714630 °
				-121.278363 °	-121.278263 °
DWR ID	DWR_RD2075_01_f_2017_19				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.					
Site ID No:577					
Site Designation:LMA-483					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:8/10/2017					
Notes:					

Photo 2 of 3 : LEVAL_FA_2018_577_4473.jpg



Photo 3 of 3 : LEVAL_FA_2018_577_4475.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	4.95	Rating **	A/W	Issue No.	20
LM End	5.20	Issue Type +	Ob	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.727200 °	37.728900 °
				-121.277800 °	-121.275200 °
DWR ID	DWR_RD2075_01_f_2017_20				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Heavy seepage was observed during the high water this year 2017.					
Site ID No:481					
Site Designation:LMA-308					
Repair Type: Seepage					
Rating:Area of Concern					
Field Date:7/26/2017					
Notes: No evidence of flood fight here, but the orchard trees next to the levee are looking a little yellow compared to the others.					

Photo 1 of 3 : LEVAL_FA_2018_481_2361.jpg



LM Start	4.95	Rating **	A/W	Issue No.	20 (cont)
LM End	5.20	Issue Type +	Ob	Location *	LS

Photo 2 of 3 : LEVAL_FA_2018_481_2199.jpg

*** Location**

LS : Land Side N/A : Not Applicable
 WS : Water Side
 CR : Crown

**** Rating**

A : Acceptable N : Not Inspected/Rated
 M : Minimally Acceptable C : Corrected
 U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
 Ob : Design & System Obsolescence
 En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	4.95	Rating **	A/W	Issue No.	20 (cont)
LM End	5.20	Issue Type +	Ob	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.727200 °	37.728900 °
				-121.277800 °	-121.275200 °
DWR ID	DWR_RD2075_01_f_2017_20				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Heavy seepage was observed during the high water this year 2017.					
Site ID No:481					
Site Designation:LMA-308					
Repair Type: Seepage					
Rating:Area of Concern					
Field Date:7/26/2017					
Notes: No evidence of flood fight here, but the orchard trees next to the levee are looking a little yellow compared to the others.					

Photo 3 of 3 : LEVAL_FA_2018_481_2200.jpg



LM Start	5.20	Rating **	M	Issue No.	34	
LM End	5.20	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			37.728853 °	37.728853 °	
				-121.275220 °	-121.275220 °	
DWR ID	24739					
Comment Code						
Inspector Comment						
FS_ID:50209 DS_ID:24739 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: - flap gates in concrete box on LS toe have failed and are open. Rusted through flapgate may indicate condition of interior of pipe. FIELD_STRUCT_DESC: 1 of 2: 16-inch steel irrigation discharge pipe through the levee, 8 feet below the crown. Electrical conduit through the levee. Pump mounted on a pile structure in the river. Wooden walkway to the pump. Siphon breaker and concrete distribution box on the landside (LS) slope. [Additional Reference(s): DWR Levee Log, 2005, 18-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 5.16), 18-inch pipe referenced]. FS Date: 6/21/2016						

Photo 1 of 3 : UCIP_FA_2018_50209_45603.jpg



WS view: two pipes, walkway to pump and pile structure in the stream.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	5.20	Rating **	M	Issue No.	34 (cont)	
LM End	5.20	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			37.728853 °	37.728853 °	
				-121.275220 °	-121.275220 °	
DWR ID	24739					
Comment Code						
Inspector Comment						
FS_ID:50209 DS_ID:24739 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: - flap gates in concrete box on LS toe have failed and are open. Rusted through flapgate may indicate condition of interior of pipe. FIELD_STRUCT_DESC: 1 of 2: 16-inch steel irrigation discharge pipe through the levee, 8 feet below the crown. Electrical conduit through the levee. Pump mounted on a pile structure in the river. Wooden walkway to the pump. Siphon breaker and concrete distribution box on the landside (LS) slope. [Additional Reference(s): DWR Levee Log, 2005, 18-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 5.16), 18-inch pipe referenced]. FS Date: 6/21/2016						

LM Start	5.20	Rating **	M	Issue No.	34 (cont)
LM End	5.20	Issue Type +	En	Location *	

Photo 2 of 3 : UCIP_FA_2018_50209_45602.jpg



LS view: siphon breakers in concrete pipe risers (bottom) on levee slope. Concrete distribution box on levee toe (top).

Photo 3 of 3 : UCIP_FA_2018_50209_45605.jpg



LS view: siphon breaker in concrete pipe riser on levee slope.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	5.20	Rating **	M	Issue No.	35	
LM End	5.20	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			37.728848 °	37.728848 °	
				-121.275195 °	-121.275195 °	
DWR ID	24743					
Comment Code						
Inspector Comment						
FS_ID:25184 DS_ID:24743 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Flap gate lid displaced. FIELD_STRUCT_DESC: 2 of 2: 16-inch steel irrigation discharge pipe through the levee, 8 feet below the crown. Electrical conduit through the levee. Pump mounted on a pile structure in the river. Wooden walkway to the pump. Siphon breaker and concrete distribution box on the landside (LS) slope. [Additional Reference(s): DWR Levee Log, 2005, 18-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 5.16), 18-inch pipe referenced]. FS Date: 11/13/2013						

LM Start	5.20	Rating **	M	Issue No.	35 (cont)
LM End	5.20	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_FA_2018_25184_45608.jpg



WS view: two pipes, walkway to pump and pile structure in the stream.

Photo 2 of 3 : UCIP_FA_2018_25184_45607.jpg



WS view: closer view of two pumps and platform in the stream.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	5.20	Rating **	M	Issue No.	35 (cont)
LM End	5.20	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.728848 °	37.728848 °
				-121.275195 °	-121.275195 °
DWR ID	24743				
Comment Code					
Inspector Comment					
FS_ID:25184 DS_ID:24743 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Flap gate lid displaced. FIELD_STRUCT_DESC: 2 of 2: 16-inch steel irrigation discharge pipe through the levee, 8 feet below the crown. Electrical conduit through the levee. Pump mounted on a pile structure in the river. Wooden walkway to the pump. Siphon breaker and concrete distribution box on the landside (LS) slope. [Additional Reference(s): DWR Levee Log, 2005, 18-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 5.16), 18-inch pipe referenced]. FS Date: 11/13/2013					

Photo 3 of 3 : UCIP_FA_2018_25184_45606.jpg



LS view: siphon breakers in concrete pipe risers (bottom) on levee slope. Concrete distribution box on levee toe (top).

LM Start	5.24	Rating **	A/W	Issue No.	21
LM End	5.29	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.728460 °	37.727799 °
				-121.274671 °	-121.274252 °
DWR ID	DWR_RD2075_01_f_2017_21				
Comment Code					
Inspector Comment					
Levee Evaluation Comments Description: Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage. Site ID No: 578 Site Designation: LMA-484 Repair Type: Erosion Rating: Area of Concern Field Date: 8/10/2017 Notes: Paved road on levee.					

Photo 1 of 3 : LEVAL_FA_2018_578_4248.jpg



* Location	** Rating	+ Issue Type
LS : Land Side WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
N/A : Not Applicable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	5.24	Rating **	A/W	Issue No.	21 (cont)
LM End	5.29	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.728460 °	37.727799 °
				-121.274671 °	-121.274252 °
DWR ID	DWR_RD2075_01_f_2017_21				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.					
Site ID No:578					
Site Designation:LMA-484					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:8/10/2017					
Notes: Paved road on levee.					

Photo 2 of 3 : LEVAL_FA_2018_578_4252.jpg



LM Start	5.24	Rating **	A/W	Issue No.	21 (cont)
LM End	5.29	Issue Type +	Ma	Location *	WS

Photo 3 of 3 : LEVAL_FA_2018_578_4257.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	5.26	Rating **	A/W	Issue No.	23
LM End		Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.728216 °	°
				-121.274434 °	°
DWR ID	DWR_RD2075_01_f _ 2017_23				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:					
Site ID No:79					
Site Designation:LMA-33					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:6/8/2017					
Notes: no damage present					

LM Start	5.26	Rating **	A/W	Issue No.	23 (cont)
LM End		Issue Type +	Ma	Location *	WS

Photo 1 of 3 : LEVAL_FA_2018_79_1331.jpg



Photo 2 of 3 : LEVAL_FA_2018_79_1335.jpg

*** Location**

LS : Land Side N/A : Not Applicable
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable N : Not Inspected/Rated
M : Minimally Acceptable C : Corrected
U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	5.26	Rating **	A/W	Issue No.	23 (cont)	
LM End		Issue Type +	Ma	Location *	WS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	2017 Storm Damage			37.728216 °		°
				-121.274434 °		°
DWR ID	DWR_RD2075_01_f _ 2017_23					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:						
Site ID No:79						
Site Designation:LMA-33						
Repair Type: Erosion						
Rating:Area of Concern						
Field Date:6/8/2017						
Notes: no damage present						

Photo 3 of 3 : LEVAL_FA_2018_79_1337.jpg



LM Start	5.27	Rating **	A/W	Issue No.	26	
LM End		Issue Type +	Ob	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	2017 Storm Damage			37.728038 °		°
				-121.274353 °		°
DWR ID	DWR_RD2075_01_f_2017_26					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:						
Site ID No:80						
Site Designation:LMA-34						
Repair Type: Seepage						
Rating:Serious						
Field Date:8/23/2017						
Notes: This site was not visited for seepage, but an erosion site (LMA-33 & LMA-484) at the same location was visited. Sac rings had been placed in the orchard during last year's storm to contain the boils and can be seen in the photos of the other two.						

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	5.28	Rating **	A/W	Issue No.	1
LM End	5.29	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.727933 °	37.727933 °
				-121.274491 °	-121.274491 °
DWR ID	RD2075U01RM64.34				
Comment Code					
Inspector Comment					
09/13/2017: No significant change observed.					
07/12/2016: No significant change observed.					
08/28/2015: No significant change observed. Loose material is visible at the upper levee slope. The loose soil may have been caused by runoff.					
08/18/2014: No significant change observed.					
09/10/2013: No significant change observed.					
09/13/2012: No significant change observed.					
08/18/2011: No significant change observed. Some new material added to the water side levee slope, but the added material is loose and seems not helping the levee protection.					
10/05/2010: No significant change observed. Levee slope has minimal vegetation and lacks rip rap protection. Sandy material found on the lower and middle slope is an undesirable material to have on a levee.					
08/05/2010: Recommended for annual assessment and monitoring during flood events, per CLRO.					
08/20/2009: No major change since last visit; site is located in an oxbow; slope surface consists of very sandy material; there is a tree on site leaning and with exposed tree roots; site is recommended as a local maintenance issue, per CLRO CES Evaluation 2008 Report; Eddy Cordoza from the district is aware of the site and is looking for recommendation; site is previously rated "U".					
08/17/2007: Site is close to an irrigation pump inlet. [2017 Site ID:RD2075U01RM64.34]					

LM Start	5.28	Rating **	A/W	Issue No.	1 (cont)
LM End	5.29	Issue Type +	Ma	Location *	WS

Photo 1 of 3 : FA_2018_RD2075_315_1_20180906_00001.jpg



Upstream view of the erosion site.

Photo 2 of 3 : FA_2018_RD2075_315_1_20180906_00002.jpg



Close view of the site.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	5.28	Rating **	A/W	Issue No.	1 (cont)	
LM End	5.29	Issue Type +	Ma	Location *	WS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR Erosion Survey			37.727933 °	37.727933 °	
				-121.274491 °	-121.274491 °	
DWR ID	RD2075U01RM64.34					
Comment Code						
Inspector Comment						
09/13/2017: No significant change observed.						
07/12/2016: No significant change observed.						
08/28/2015: No significant change observed. Loose material is visible at the upper levee slope. The loose soil may have been caused by runoff.						
08/18/2014: No significant change observed.						
09/10/2013: No significant change observed.						
09/13/2012: No significant change observed.						
08/18/2011: No significant change observed. Some new material added to the water side levee slope, but the added material is loose and seems not helping the levee protection.						
10/05/2010: No significant change observed. Levee slope has minimal vegetation and lacks rip rap protection. Sandy material found on the lower and middle slope is an undesirable material to have on a levee.						
08/05/2010: Recommended for annual assessment and monitoring during flood events, per CLRO.						
08/20/2009: No major change since last visit; site is located in an oxbow; slope surface consists of very sandy material; there is a tree on site leaning and with exposed tree roots; site is recommended as a local maintenance issue, per CLRO CES Evaluation 2008 Report; Eddy Cordoza from the district is aware of the site and is looking for recommendation; site is previously rated "U".						
08/17/2007: Site is close to an irrigation pump inlet. [2017 Site ID:RD2075U01RM64.34]						

Photo 3 of 3 : FA_2018_RD2075_315_1_20180906_00003.jpg



Looking upstream at the site.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	5.56	Rating **	M	Issue No.	36
LM End	5.56	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.724877 °	37.724877 °
				-121.271025 °	-121.271025 °
DWR ID	24740				

Comment Code

Inspector Comment

FS_ID:50191
DS_ID:24740
EP_NO: 3492

Repair Type: Non-Urgent

Crossing Status: Found

UCIP Comments: 06/21/2016 Rock revetment placed along WS slope beneath and around pipe; this corrected the levee erosion but still unclear whether the cause of the erosion was addressed. I found no evidence of siphon breaker leakage cited previously. Eddy Cardoza of RD2075 mentioned he saw no leak in and around pipe when the levee slope was repaired. Crossing was been downgraded from Urgent to Non-Urgent. (K. Fazel - UCIP)11/13/2013 Huge erosion on waterside levee slope due to siphon breaker leakage. It is not 16-inch but 12-inch steel pipe. Pump not mounted on pile structure but mounted on concrete sump. Siphon breaker not in concrete riser but on steel pipe. Pipe is not 8 ft. below the crown but 4 ft below the crown. Looks original pipe was replaced with new crossing. Needs more information from LMA or DWR Inspector. (P. Amatya - DWR)

FIELD_STRUCT_DESC: 12-inch asphalt coated steel drainage discharge pipe through the levee, 4 feet below the crown. Concrete cutoff wall. Pump mounted on a concrete sump in a drainage ditch approximately 200 feet off the landside (LS) toe. Siphon breaker on the apex of the pipe through the waterside (WS) slope. (Plans to replace the discharge pipe across the levee authorized under Permit No. 3492, 1960 - Reclamation District No. 2075, care of Eldred E. Brown, Secretary. Plans to replace a 10-horsepower pump and a 10-inch pipe with a larger 15-horsepower pump and a 14-inch steel discharge pipe authorized under Permit No. 3492-A, 1969 - Reclamation District No. 2075, care of Eldred E. Brown, Secretary). [Additional Reference(s): DWR Levee Log, 2005, 16-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 5.52), 16-inch pipe referenced]. FS Date: 6/21/2016

Photo 1 of 3 : UCIP_FA_2018_50191_44262.jpg



WS view: siphon breaker on steel pipe on levee slope. Huge soil erosion due to siphon breaker leakage.

* Location	** Rating	+ Issue Type
LS : Land Side WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
N/A : Not Applicable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	5.56	Rating **	M	Issue No.	36 (cont)	
LM End	5.56	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			37.724877 °	37.724877 °	
				-121.271025 °	-121.271025 °	
DWR ID	24740					
Comment Code						
Inspector Comment						

FS_ID:50191

DS_ID:24740

EP_NO: 3492

Repair Type: Non-Urgent

Crossing Status: Found

UCIP Comments: 06/21/2016 Rock revetment placed along WS slope beneath and around pipe; this corrected the levee erosion but still unclear whether the cause of the erosion was addressed. I found no evidence of siphon breaker leakage cited previously. Eddy Cardoza of RD2075 mentioned he saw no leak in and around pipe when the levee slope was repaired. Crossing was been downgraded from Urgent to Non-Urgent. (K. Fazel - UCIP)11/13/2013 Huge erosion on waterside levee slope due to siphon breaker leakage. It is not 16-inch but 12-inch steel pipe. Pump not mounted on pile structure but mounted on concrete sump. Siphon breaker not in concrete riser but on steel pipe. Pipe is not 8 ft. below the crown but 4 ft below the crown. Looks original pipe was replaced with new crossing. Needs more information from LMA or DWR Inspector. (P. Amatya - DWR)

FIELD_STRUCT_DESC: 12-inch asphalt coated steel drainage discharge pipe through the levee, 4 feet below the crown. Concrete cutoff wall. Pump mounted on a concrete sump in a drainage ditch approximately 200 feet off the landside (LS) toe. Siphon breaker on the apex of the pipe through the waterside (WS) slope. (Plans to replace the discharge pipe across the levee authorized under Permit No. 3492, 1960 - Reclamation District No. 2075, care of Eldred E. Brown, Secretary. Plans to replace a 10-horsepower pump and a 10-inch pipe with a larger 15-horsepower pump and a 14-inch steel discharge pipe authorized under Permit No. 3492-A, 1969 - Reclamation District No. 2075, care of Eldred E. Brown, Secretary). [Additional Reference(s): DWR Levee Log, 2005, 16-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 5.52), 16-inch pipe referenced]. FS Date: 6/21/2016

Photo 2 of 3 : UCIP_FA_2018_50191_44261.jpg



LS view: pipe, pump and concrete sump in the drain ditch.

* Location	** Rating	+ Issue Type
LS : Land Side WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
N/A : Not Applicable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	5.56	Rating **	M	Issue No.	36 (cont)
LM End	5.56	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.724877 °	37.724877 °
				-121.271025 °	-121.271025 °
DWR ID	24740				

Comment Code

Inspector Comment

FS_ID:50191

DS_ID:24740

EP_NO: 3492

Repair Type: Non-Urgent

Crossing Status: Found

UCIP Comments: 06/21/2016 Rock revetment placed along WS slope beneath and around pipe; this corrected the levee erosion but still unclear whether the cause of the erosion was addressed. I found no evidence of siphon breaker leakage cited previously. Eddy Cardoza of RD2075 mentioned he saw no leak in and around pipe when the levee slope was repaired. Crossing was been downgraded from Urgent to Non-Urgent. (K. Fazel - UCIP)11/13/2013 Huge erosion on waterside levee slope due to siphon breaker leakage. It is not 16-inch but 12-inch steel pipe. Pump not mounted on pile structure but mounted on concrete sump. Siphon breaker not in concrete riser but on steel pipe. Pipe is not 8 ft. below the crown but 4 ft below the crown. Looks original pipe was replaced with new crossing. Needs more information from LMA or DWR Inspector. (P. Amatya - DWR)

FIELD_STRUCT_DESC: 12-inch asphalt coated steel drainage discharge pipe through the levee, 4 feet below the crown. Concrete cutoff wall. Pump mounted on a concrete sump in a drainage ditch approximately 200 feet off the landside (LS) toe. Siphon breaker on the apex of the pipe through the waterside (WS) slope. (Plans to replace the discharge pipe across the levee authorized under Permit No. 3492, 1960 - Reclamation District No. 2075, care of Eldred E. Brown, Secretary. Plans to replace a 10-horsepower pump and a 10-inch pipe with a larger 15-horsepower pump and a 14-inch steel discharge pipe authorized under Permit No. 3492-A, 1969 - Reclamation District No. 2075, care of Eldred E. Brown, Secretary). [Additional Reference(s): DWR Levee Log, 2005, 16-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 5.52), 16-inch pipe referenced]. FS Date: 6/21/2016

Photo 3 of 3 : UCIP_FA_2018_50191_44260.jpg



LS view: closer view of pipe, pump and concrete sump in the drain ditch.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Levee Inspection Report By Mile - Fall 2018

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

Photo 1 of 1 : FA_2018_RD2075_315_22_20180906_00035.jpg



05/24/2018

Looking downstream at untrimmed tree on landward toe. (Spring 2018)

Photo 1 of 3 : LEVAL_FA_2018_579_4263.jpg

A photograph showing a white pickup truck parked on a sandy dune. The dune is covered with sparse, low-lying green and yellow vegetation. In the background, there is a single dark green tree under a clear blue sky. The foreground shows more of the sandy dune with similar sparse vegetation.

Wednesday, December 26, 2018 18:38 **FINAL DATA** Page 34 of 38

Reclamation District No. 2075 McMullin

Page 35 of 38

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	6.20	Rating **	A/W	Issue No.	27
LM End	6.33	Issue Type +	Ma	Location *	WS
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	2017 Storm Damage		37.722087°	37.720952°	
			-121.261863°	-121.259950°	
DWR ID	DWR_RD2075_01_f_2017_27				
Comment Code					
Inspector Comment					
<p>Levee Evaluation Comments</p> <p>Description: Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.</p> <p>Site ID No: 580</p> <p>Site Designation: LMA-486</p> <p>Repair Type: Erosion</p> <p>Rating: Area of Concern</p> <p>Field Date: 8/10/2017</p> <p>Notes: This site is combined with LMA 485.</p>					

No Photos

*** Location**
 LS : Land Side N/A : Not Applicable
 WS : Water Side
 CR : Crown

**** Rating**
 A : Acceptable N : Not Inspected/Rated
 M : Minimally Acceptable C : Corrected
 U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type
 Ma : Maintenance Deficiency
 Ob : Design & System Obsolescence
 En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	6.84	Rating **	M	Issue No.	37	
LM End	6.84	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			37.714162 °	37.714162 °	
				-121.259227 °	-121.259227 °	
DWR ID	24742					
Comment Code						
Inspector Comment						
FS_ID:50213 DS_ID:24742 EP_NO: 4051 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 06/21/2016: Erosion repaired with rock revetment and crown regraded. Pipe is crushed and deformed on LS. PVC pipe has been removed. Crossing has been downgraded from Urgent to Non-Urgent.11/13/2013:- exposed deformed pipe on landside slope. Soil erosion also occurred around the deformed pipe. Walkway at pump on LS toe in poor structural condition.- a temporary 12-inch PVC pipe also found on both sides of the levee. FIELD_STRUCT_DESC: 12-inch steel drainage discharge pipe through the levee, 5.5 feet below the crown. Corrugated metal cutoff wall. Pump mounted over a concrete sump at the landside (LS) toe. Siphon breaker in a corrugated metal pipe (CMP) riser on the waterside (WS) shoulder. Ditch across the WS berm. 12-inch polyvinyl chloride (PVC) pipe through the levee, 1 foot below the crown, installed for emergency use during the 1986 floods, not found in 2016. (Plans for installation of a 10-inch drainage discharge pipe for a drainage pump over the levee authorized under Permit No. 4051, 1962 - Reclamation District No. 2075). [Additional Reference(s): DWR Levee Log, 2005, 10-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 6.79), 10-inch pipe referenced]. FS Date: 6/21/2016						

LM Start	6.84	Rating **	M	Issue No.	37 (cont)
LM End	6.84	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_FA_2018_50213_45613.jpg



WS view: CMP riser (bottom) on levee shoulder. Steel pipe (top) and temporary pvc pipe on levee slope.

Photo 2 of 3 : UCIP_FA_2018_50213_45612.jpg



WS view: siphon breaker in CMP riser on levee shoulder.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 2075 McMullin

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.45	11/09/2018 11/09/2018	Richard Willoughby

LM Start	6.84	Rating **	M	Issue No.	37 (cont)	
LM End	6.84	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			37.714162 °	37.714162 °	
				-121.259227 °	-121.259227 °	
DWR ID	24742					
Comment Code						
Inspector Comment						
FS_ID:50213 DS_ID:24742 EP_NO: 4051 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 06/21/2016: Erosion repaired with rock revetment and crown regraded. Pipe is crushed and deformed on LS. PVC pipe has been removed. Crossing has been downgraded from Urgent to Non-Urgent.11/13/2013:- exposed deformed pipe on landside slope. Soil erosion also occurred around the deformed pipe. Walkway at pump on LS toe in poor structural condition.- a temporary 12-inch PVC pipe also found on both sides of the levee. FIELD_STRUCT_DESC: 12-inch steel drainage discharge pipe through the levee, 5.5 feet below the crown. Corrugated metal cutoff wall. Pump mounted over a concrete sump at the landside (LS) toe. Siphon breaker in a corrugated metal pipe (CMP) riser on the waterside (WS) shoulder. Ditch across the WS berm. 12-inch polyvinyl chloride (PVC) pipe through the levee, 1 foot below the crown, installed for emergency use during the 1986 floods, not found in 2016. (Plans for installation of a 10-inch drainage discharge pipe for a drainage pump over the levee authorized under Permit No. 4051, 1962 - Reclamation District No. 2075). [Additional Reference(s): DWR Levee Log, 2005, 10-inch pipe referenced. USACE San Joaquin O&M Manual 3, December 1968, (HLM 6.79), 10-inch pipe referenced]. FS Date: 6/21/2016						

Photo 3 of 3 : UCIP_FA_2018_50213_45614.jpg



LS view: deformed pipe and soil erosion around it (marked bottom). Pipe and pump on pile structure in drain ditch.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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